APPENDIX A: Supplemental Joint Claim Construction Chart[1]

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
1	1. An image lens array, from object side to image side, comprising: a first lens, a second lens, and a third lens; wherein the first lens with positive refracting power has a front convex surface and a back concave surface, a radius of curvature of the front convex surface and that of the back concave surface of the first lens are: L1R1 and L1R2 that satisfy an equation as: □L1R1/L1R2□<0.5, the first lens is provided with aspherical	'925 Patent, Claim 1	The Court should construe the printing error of a box (□) as an absolute value symbol (|). Under this construction, the formulas in claim 1 will read: |L1R1/L1R2|<0.5 |L3R1/L3R2|>0.3[2]	'925 Patent at Tables 1, 2[3]; Abstract; 1:65-2:4; 2:54-59; 2:62-67; 3:1-7; 3:12-15; 3:56-63; 4:11-21; 4:46-54. '925 File History ("FH") at LAR-SAM-0000046-66; 78-83. U.S. Patent	Indefinite Samsung object's to Largan's proposal that the Court construe "□" as a single term. Only five claim construction terms have been allocated to Largan, but Largan here is attempting to have the Court construe five separate terms under the guise of a single entry in this chart. Those five terms are:	Samsung identifies the entirety of the specification and file history of the '925 patent, because claim 1, when "read in light of the specification delineating the patent, and the prosecution history, fail[s] to inform, with reasonable

[1] Largan served its Preliminary Election of Asserted Claims on August 29, 2014 after Samsung had completed its work on its claim construction positions. In this Supplemental Joint Claim Construction Chart, Samsung has dropped those terms that it now understands not to be at issue on account of Largan's election. Samsung reserves the right to further supplement this list should Largan take any contrary positions as the case progresses.

[2] The parties have agreed that the claim term "R3R1" in the following formula "□R3R1/L3R2□>0.3", should be construed as "L3R1". This agreed-upon construction appears in the Parties' Joint Claim Construction Worksheet (Appendix B).

[3] Largan's citations to tables and figures are also intended to cover citations to descriptions of those tables and figures, and vice versa.

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	surface; an aperture is arranged behind the first lens, for controlling brightness of the image lens array; the second lens having a front concave surface and a back convex surface, is located behind the aperture and has a negative refracting power, and the second lens is also provided with aspherical surface; and the third lens with a front convex surface and a back concave surface, is located behind the second lens and has a positive power, a radius of curvature of the front convex surface and that of the back concave surface of the third lens are: L3R1 and L3R2 that satisfy an equation as: □R3R1/L3R2□>0.3, the third lens is provided with aspherical		1.5>|f/f1|>1.0 1.2>|f/f2|>0.7 1.2>|f/f3|>0.3 Pursuant to P.L.R. 4.2(b), Largan states that other than Samsung's indefiniteness argument, it is not presently aware of any non-infringement or invalidity argument that hinges upon the construction of this term. However, Samsung has not yet provided any substantive response to Largan's	App. Pub. No. 2007/0091471. U.S. Patent No. 8,767,314 U.S. Patent App. Pub. No. 2014/0152887 In response to Samsung's argument that multiple occurrences of a single character within a single patent claim constitutes five claim terms is blatantly inconsistent with its brand-new argument	• □L1R1/L1R2□<0.5 • □R3R1/L3R2□>0.3 • 1.5>□f/f1□>1.0 • 1.2>□f/f2□>0.7 • 1.2>□f/f3□>0.3. Each "□" must be analyzed in the context of the term in which it occurs and that term must be independently analyzed by the Court. Largan further failed to identify "□" as an independent term in either its preliminary proposed constructions (P.L.R. 4.1(a)) or its responsive proposed constructions (P.L.R. 4.1(c)). Instead, Largan waited until two days before this Joint Claim Construction	certainty, those skilled in the art about the scope of the invention." '925 Patent at 2:54–64; 3:1–7; 3:56–63; 4:10–19;Tables 1, 2;[4] Claim 1. No alleged error is clear from the face of the patent, and consequently the file history should not be consulted as part of assessing any claim of alleged error. However, if it becomes

[4] Samsung's citations to tables and figures are also intended to cover citations to descriptions of those tables and figures, and vice versa.

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	surface; focal lengths of the first, second and third lenses are: f1, f2 and f3, and a focal length of the image lens array is f, these four focal lengths are controlled to satisfy the following conditions: 1.5>□f/f1□>1.0 1.2>□f/f2□>0.7 1.2>□f/f3□>0.3.		discovery requests seeking its non-infringement positions.	that the Court should construe nine preambles from five different patents as one claim term. Moreover, Samsung's argument that this claim term was not properly disclosed in advance is plainly incorrect. Although Largan initially proposed longer portions of the claim language for construction (whole	Statement was due to argue for the first time that "□" should be construed. The patent local rules are designed to prohibit such dilatory tactics, particularly when they violate the Court's limits on the numbers of disputed terms. Nonetheless, in the event that the Court considers these five terms ("□L1R1/L1R2□<0.5"; "□R3R1/L3R2□>0.3"; "1.5>□f/f1□>1.0"; "1.2>□f/f2□>0.7"; "1.2>□f/f3□>0.3"), they are indefinite. Each term, viewed in light of the specification and prosecution history, fails to inform those skilled in the art about the scope of the	relevant, Samsung identifies in addition to the citations to the specification listed above, the following specific file history citations: As-filed application filed 10/18/2005; May 14, 2007 Response to Office Action; Notice of Allowability. Samsung objects to Largan's purported reliance on U.S. Patent App. Pub. No.

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
				formulas that included the boxes), both parties shortened claim terms with an aim for narrowing the disputed issues before the Court. For example, less than 24 hours before the original filing, Samsung deleted language from its proposed term "the [second / third] lens element . . . [has /having] . . . at least one inflection point formed on the object-side and	invention with reasonable certainty. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. ____, slip op. at 11 (2014). Further, Plaintiff's proposed construction impermissibly reads different meaning into the claim. Largan's construction is an inappropriate attempt to use this Court to correct the '925 Patent. These terms are not amenable to judicial correction because they do not satisfy the Federal Circuit's requirements for judicial correction. *Group One, Ltd. v. Hallmark Cards, Inc.*, 407 F.3d 1297, 1303 (Fed. Cir. 2005); *Novo Indus.,*	2007/0091471. Contrary to the requirements of L.P.R. 4.1(a) and 4.1(c), Largan first disclosed these references less than 12 hours before the original filing was due to the Court. Largan also has not produced a copy of this reference as required by L.P.R. 4.1(b) and 4.1(d).

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
				image-side surfaces," which now reads: "at least one inflection point formed on the object-side and image-side surfaces." Narrowing claim terms is in the best interest of the parties and the Court. Samsung has no grounds to complain about Largan narrowing its proposals, particularly because it did so itself less than 24 hours before the original filing.	*L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1352–53 (Fed. Cir. 2003). Pursuant to P.L.R. 4.2(b), Samsung states that the construction of this claim term may impact its non-infringement or invalidity arguments. However, Largan has not served proper infringement contentions or any substantive response to Samsung's discovery request seeking its validity positions.	
2	21. An imaging lens system	'190	-1.5<f4/f5≤-0.79	'190 Patent at	Plain and ordinary	'190 Patent at

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	including, in order from an object side to an image side: a first lens element with positive refractive power having a convex object-side surface; a second lens element; a third lens element; a fourth lens element with positive refractive power having a convex image-side surface; and a fifth lens element with negative refractive power having a convex object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric, at least one surface thereof being provided with at least one inflection point; wherein the lens elements with refractive power in the imaging lens system are only the first, second, third, fourth and fifth lens elements; a focal length of the	Patent, Claim 21	Pursuant to P.L.R. 4.2(b), Largan states that it is not presently aware of any non-infringement or invalidity argument that hinges upon the construction of this term. However, Samsung has not yet provided any substantive response to Largan's discovery requests seeking its non-infringement positions.	Table 7, Fig. 13; 3:12-13; 4:20-25; 6:3-8; 7:61-64; 9:26-29; 10:60-63; 11:43-45. '190 FH at LAR-SAM-000001373-1415; 1438-1450.	meaning, *i.e.*, "-1.5<f4/f5≤0.79" Plaintiff's proposed construction impermissibly reads different meaning into the claim. To the extent Largan contends the construction is intended to correct an alleged error in the claims, Largan's construction is an inappropriate attempt to use this Court to correct the '190 Patent. This term is not amenable to judicial correction because it does not satisfy the Federal Circuit's requirements for judicial correction. *Group One*, 407 F.3d at 1303; *Novo*, 350 F.3d at 1352–53. Pursuant to P.L.R.	3:67–43, 4:20–6:38, 7:61–8:10, 9:26–42, 10:60–11:9, 11:41–45, Figures 7–12, and Claims 1, 13, & 21. No alleged error is clear from the face of the patent, and consequently the file history should not be consulted as part of assessing any claim of alleged error. However, if it becomes relevant, Samsung identifies in addition to the citations to the specification listed above,

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	fourth lens element is f4, a focal length of the fifth lens element is f5, and they satisfy the relation: **-1.5<f4/f5≤0.79**.				4.2(b), Samsung states that the construction of this claim term may impact its non-infringement or invalidity arguments. However, Largan has not served proper infringement contentions or any substantive response to Samsung's discovery request seeking its validity positions.	the following specific file history citations: As-filed application dated 3/21/2013, the examiner's non-final rejection dated 8/22/2013, the amendment and arguments dated 10/21/2013, and the notice of allowability and reasons for allowance dated 1/14/2014.
3	<u>'602 Patent</u> 1. **An optical system for taking image comprising three lens elements with refractive power, from the object side to the image side:**	'602 Patent, Claim 1 '807 Patent, Claims 1 and 20	Samsung's proposal that the Court construe the preambles of the independent claims as limiting is not properly before the Court.	Because Samsung identified this multitude of terms for the first time on the day this filing was due	The preambles of the independent claims in the '602, '807,'860, '190, and '191 Patents are limiting because they recite essential structure or steps and/or are necessary to	'602 Patent at Abstract; Figures 1, 3; 1:21-31; 1:41-58; 5:12-44; 7:37-67; Tables 1, 3; Claim 1.

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	a first lens element with positive refractive power having a convex front surface and a concave rear surface, the front surface of the first lens being aspheric; a plastic second lens element with negative refractive power having a concave front surface and a convex rear surface, the front surface and the rear surface of the second lens being aspheric; a plastic third lens element with positive refractive power having a convex front surface and a concave rear surface, the front surface and the rear surface of the third lens being aspheric; and an aperture stop located between the first lens element and the second lens element for controlling brightness of the optical system; wherein a focal length of the first lens element is f1, a focal length of the second lens element is f2, a focal length of the optical system	'860 Patent, Claim 1 '190 Patent, Claims 1 and 21 '191 Patent, Claims 1, 12, and 22	First, Samsung's proposal vastly exceeds the Court's limit of 10 disputed claim terms because there is no one preamble. Rather, each independent claim in each of the patents-in-suit has a different preamble. Moreover, each preamble consists of multiple different terms, each of which must be analyzed separately for whether or not it is a limitation. Moreover, the fact that Samsung's proposal to construe all of the preambles exceeds the	in violation of the Patent Local Rules, Largan has not yet had an opportunity to identify the intrinsic or extrinsic evidence upon which it may rely. At a minimum, Largan anticipates relying upon the claims in which each preamble is found.	give "life, meaning, and vitality" to the claims. *See, e.g.*, *Catalina Mktg., Int'l v. Coolsavings.com*, 289 F.3d 801, 808 (Fed. Cir. 2002). Largan has been on notice that Samsung believes the preambles of the independent claims in the '602, '807,'860, '190, and '191 Patents are limiting, On August 1, 2014, Samsung identified "thin type," found in the preambles of claims 7 and 8 of the '747 Patent, as a term requiring construction. Samsung further disclosed Samsung's view that these preambles are limiting to Largan during a meet-and-confer on August 25,	'807 Patent at Abstract; 1:50–2:63; 3:11–24; 4:15–55; 4:60–5:50; 5:59–6:27; 6:32–7:42; 7:51–59; 8:16–38; 8:64–9:36; 9:55–10:13; 10:27–67; 11:19–43; 11:57–12:29; 12:48–13:5; 13:20–60; 14:12–36; 14:50–15:23; 15:42–67; 16:14–54; Figures 1, 3, 5, 7, 9, 11, 13–25, Claims 1–23. '860 Patent at Abstract, 1:16–18, 1:51–3:42, 4:42–61, 5:56–6:6, 6:16–53, 7:41–64, 9:23–37, 9:56–67, 10:63–11:10,

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	is f, and they satisfy the relations: f/f1>0.95, |f/f2|>0.34. '807 Patent 1. **An imaging lens assembly comprising, in order from an object side to an image side:** a first lens element with positive refractive power having a convex object-side surface and a convex image-side surface; a second lens element with negative refractive power, at least one of the object-side and image-side surfaces thereof being aspheric; and a third lens element with negative refractive power having a concave image-side surface, both of the object-side and image-side surfaces thereof being aspheric; and wherein the imaging lens assembly further comprises an aperture stop disposed between the first lens element and the second lens element, and an		Court's limit on the number of disputed claim terms is particularly true given that Samsung is only permitted to choose half of the 10 disputed terms. Second, Samsung identified only one specific preamble (of a patent claim that is no longer asserted) in its preliminary proposed constructions (Patent L.R. 4.1.a) and its responsive proposed constructions (Patent L.R. 4.1.c). Samsung waited until the day this Joint Claim		2014. Samsung again confirmed Samsung's view that the preambles are limiting during a follow-up meet-and-confer on August 27, 2014. Pursuant to P.L.R. 4.2(b), Samsung states that the construction of this claim term may impact its non-infringement or invalidity arguments. However, Largan has not served proper infringement contentions or any substantive response to Samsung's discovery request seeking its validity positions.	11:29–40, 12:35–49, 13:1–12, 14:40–51, 15:45–59, 16:11–22, 17:16–30, 17:49–60, 18:55–19:2, Figures 1A, 2A, 3A, 4A, 5A, 6A, 7A, 8–22, and Claims 1 & 17. '860 File History: as-filed application dated 11/22/2011, and the notice of allowability and reasons for allowance dated 6/24/2013. '190 Patent at Abstract, 1:46–

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	electronic sensor for image formation; wherein there are three lens elements with refractive power; and wherein a focal length of the imaging lens assembly is f, a focal length of the second lens element is f2, a radius of curvature of the object-side surface of the first lens element is R1, a radius of curvature of the image-side surface of the first lens element is R2, a radius of curvature of the object-side surface of the second lens element is R3, a distance on the optical axis between the aperture stop and the electronic sensor is SL, a distance on the optical axis between the object-side surface of the first lens element and the electronic sensor is TTL, and they satisfy the following relations: −0.70<f/f2<−0.24; −0.30<R1/R2<0.00; −0.40<R3/f<−0.24; 0.75<SL/TTL<0.90.		Construction Statement was due to argue for the first time that all preambles should be construed. The patent local rules are designed to prohibit such dilatory tactics, particularly when they violate the Court's limits on the numbers of disputed terms. In the event the Court considers Samsung's proposal as a single "term," Largan states that the preambles are not limiting. However, for the reasons discussed above, these are neither one term nor should			59, 2:24–38, 3:18–31, 3:58–63, 4:43–55, 5:3–18, 5:44–49, 6:26–38, 6:58–7:22, 8:15–22, 8:36–67, 9:48–55, 10:3–34, 11:14–21, Figures 1, 3, 5, & 7–13, and Claims 1, & 21. '190 File History: as-filed application dated 3/21/2013, the examiner's non-final rejection dated 8/22/2013, the amendment and arguments dated 10/21/2013, and the notice of

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	20. **An imaging lens assembly comprising, in order from an object side to an image side:** a first lens element with positive refractive power having a convex object-side surface and a convex image-side surface; a second lens element with negative refractive power having a concave object-side surface and a convex image-side surface, at least one of the object-side and the image-side surfaces thereof being aspheric; and a third lens element with negative refractive power having a concave image-side surface, both of the object-side and image-side surfaces thereof being aspheric, at least one inflection point formed on the object-side and image-side surfaces; and wherein the imaging lens assembly further comprises an aperture stop disposed between the first lens element and the second lens element, and an		Samsung be permitted to introduce this argument on the day of filing. Pursuant to P.L.R. 4.2(b), Largan states that it is not presently aware of any non-infringement or invalidity argument that hinges upon the construction of this term, making Samsung's last-minute insistence on construing these terms even more odd. However, Samsung has not yet provided any substantive response to Largan's discovery requests seeking			allowability and reasons for allowance dated 1/14/2014. '191 Patent at Abstract, 1:46–59, 2:24–38, 3:18–31, 3:58–63, 4:43–55, 5:3–18, 5:44–49, 6:26–38, 6:58–7:22, 8:12–19, 8:33–64, 9:42–49, 9:64–10:28, 11:5–12, Figures 1, 3, 5, & 7–13, Claims 1, 12, & 22. '191 File History: the application dated 5/9/2013, the examiner's non-final rejection dated 9/9/2013, the amendment and

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	electronic sensor for image formation; wherein there are three lens elements with refractive power; and wherein a focal length of the imaging lens assembly is f, a focal length of the second lens element is f2, a radius of curvature of the object-side surface of the first lens element is R1, a radius of curvature of the image-side surface of the first lens element is R2, an Abbe number of the first lens element is V1, an Abbe number of the second lens element is V2, a distance on the optical axis between the aperture stop and the electronic sensor is SL, a distance on the optical axis between the object-side surface of the first lens element and the electronic sensor is TTL, and they satisfy the following relations: −0.70<f/f2<−0.24; −0.30<R1/R2<0.00; 31.0<V1−V2<45.0;		its non-infringement positions.			arguments dated 11/18/2013, and the notice of allowability and reasons for allowance dated 1/13/2014.

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	0.75<SL/TTL<0.90. '860 Patent 1. **An optical lens system comprising, in order from an object side to an image side:** a first lens element with positive refractive power having a convex object-side surface; a second lens element with negative refractive power; a third lens element with positive refractive power having a convex object-side surface and a convex image-side surface; a fourth lens element; and a fifth lens element having a convex object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric and at least one inflection point being formed on the image-side					

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	surface, wherein the optical lens system is further provided with a stop disposed between an object and the third lens element, and an electronic sensor disposed at an image plane for the image formation of the object; a focal length of the optical lens system is f; a focal length of the third lens element is f3; a distance on an optical axis between the stop and the electronic sensor is SL; a distance on the optical axis between the object-side surface of the first lens element and the electronic sensor is TTL; and they satisfy the following relations: 0.00<f/f3<1.90, and 0.7<SL/TTL<1.2. <u>'190 Patent</u> 1. **An imaging lens system including, in order from an object side to an image side:**					

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	a first lens element with positive refractive power having a convex object-side surface; a second lens element with negative refractive power; a third lens element; a fourth lens element with positive refractive power having a convex image-side surface; and a fifth lens element with negative refractive power having a convex object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric, at least one surface thereof being provided with at least one inflection point; wherein the lens elements with refractive power in the imaging lens system are only the first, second, third, fourth and fifth lens elements; a focal length of the fourth lens element is f4, a focal length of the fifth lens element is					

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	f5, and they satisfy the relation: $-1.5<f4/f5<-0.5$. 21. **An imaging lens system including, in order from an object side to an image side:** a first lens element with positive refractive power having a convex object-side surface; a second lens element; a third lens element; a fourth lens element with positive refractive power having a convex image-side surface; and a fifth lens element with negative refractive power having a convex object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric, at least one surface thereof being provided with at least one inflection point; wherein the lens elements with					

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	refractive power in the imaging lens system are only the first, second, third, fourth and fifth lens elements; a focal length of the fourth lens element is f4, a focal length of the fifth lens element is f5, and they satisfy the relation: $-1.5<f4/f5\leqq 0.79$. '191 Patent 1. **An imaging lens system including, in order from an object side to an image side:** a first lens element with positive refractive power having a convex object-side surface; a second lens element with negative refractive power having a convex object-side surface and a concave image-side surface; a third lens element; a fourth lens element having a concave object-side surface and a convex image-side surface; and					

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	a fifth lens element with negative refractive power having an object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric, at least one surface thereof being provided with at least one inflection point; wherein the lens elements with refractive power in the imaging lens system are only the first, second, third, fourth and fifth lens elements; an Abbe number of the first lens element is V1, an Abbe number of the second lens element is V2, and the following relation is satisfied: V1−V2>20. 12. **An imaging lens system including, in order from an object side to an image side:** a first lens element with positive refractive power having a convex object-side surface; a second lens element with negative refractive power having					

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	a convex object-side surface and a concave image-side surface; a third lens element; a fourth lens element having a concave object-side surface and a convex image-side surface; and a fifth lens element having an object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric, at least one surface thereof being provided with at least one inflection point; wherein the lens elements with refractive power in the imaging lens system are only the first, second, third, fourth and fifth lens elements. 22. **An imaging lens system including, in order from an object side to an image side:** a first lens element with positive refractive power having a convex					

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
	object-side surface; a second lens element with negative refractive power having a convex object-side surface and a concave image-side surface; a third lens element; a fourth lens element having a convex image-side surface; and a fifth lens element having an object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric, at least one surface thereof being provided with at least one inflection point; wherein the lens elements with refractive power in the imaging lens system are only the first, second, third, fourth and fifth lens elements; a focal length of the fourth lens element is f4, a focal length of the fifth lens element is f5, and the following relation is satisfied: −1.5<f4/f5<−0.5.					

No.	Complete Claim Language (with disputed terms in bold)	Patent / Asserted Claims	Largan's Proposed Construction	Largan's Evidence	Samsung's Proposed Construction	Samsung's Evidence
4	'602 Patent 1. An optical system for taking image comprising three lens elements with refractive power, from the object side to the image side: a first lens element with positive refractive power having a convex front surface and a concave rear surface, the front surface of the first lens being aspheric; a **plastic** second lens element with negative refractive power having a concave front surface and a convex rear surface, the front surface and the rear surface of the second lens being aspheric; a **plastic** third lens element with positive refractive power having a convex front surface and a concave rear surface, the front surface and the rear surface of the third lens being aspheric; and an aperture stop located between the first lens element and the	'602 Patent, Claims 1 and 2 '807 Patent, Claims 2 and 22 '860 Patent, Claim 2	This term needs no construction and should be given its plain and ordinary meaning. Pursuant to P.L.R. 4.2(b), Largan states that it is not presently aware of any non-infringement or invalidity argument that hinges upon the construction of this term. However, Samsung has not yet provided any substantive response to Largan's discovery requests seeking its non-infringement positions.	'602 Patent: Abstract; Tables 1, 3; 1:47-55, 2:38-44, 3:11-14, 5:20-33, 7:45-57 '807 Patent: Tables 1, 3, 5, 7, 9, 11; 4:67-5:3, 7:47-50, 7:60-8:4 '860 Patent: Tables 1, 3, 5, 7, 9, 11, 13; 5:10-12, 7:65-8:8 U.S. Patent No. 7,791,818 U.S. Patent No. 8,279,532 U.S. Patent No. 8,665,533 U.S. Patent	"synthetic material distinct from glass" Pursuant to P.L.R. 4.2(b), Samsung states that the construction of this claim term may impact its non-infringement or invalidity arguments. However, Largan has not served proper infringement contentions or any substantive response to Samsung's discovery request seeking its validity positions.	'602 Patent at 2:33-44. '747 Patent at 2:19–30; 3:60–4:10; 5:51–65; 9:10–25; 11:44–58; Tables 1–7, Claims 1, 5–8. '747 File History: the certified copy of foreign priority application, Taiwanese Patent Application 96130044, submitted 12/27/2007, the examiner's non-final rejection dated 4/1/2010, the amendment and arguments dated

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	second lens element for controlling brightness of the optical system; wherein a focal length of the first lens element is f1, a focal length of the second lens element is f2, a focal length of the optical system is f, and they satisfy the relations: f/f1>0.95, |f/f2|>0.34. 2. The optical system for taking image as claimed in claim 1, wherein the first lens element is made of **plastic** material, the rear surface of the first lens element is aspheric, and the third lens element is formed with at least one inflection point. <u>'807 Patent</u> 2. The imaging lens assembly according to claim 1, wherein the second lens element has a concave object-side surface and a convex image-side surface, is made of **plastic** material, and has at least one inflection point formed on the object-side and			No. 8,767,314 Largan objects to Samsung's reliance on Academic Press Dictionary of Science and Technology, 1667 (1992) as contrary to the requirements of L.P.R. 4.1(a) and 4.1(c). These documents were produced to Largan less than 24 hours before the original filing was due to the Court. Largan further objects to Samsung's use of any other documents that were		6/29/2010, the examiner's non-final rejection dated 9/15/2010; the amendment and arguments dated 12/8/2010, and the notice of allowability and reasons for allowance dated 12/23/2010. '807 Patent at 4:67–5:3; 7:47–50; 7:60–65; 8:13–32; 9:55–10:6; 11:19–37; 12:48–66; 14:12–30; 15:42–60; Figures 13–25; Claims 2 & 22. '807 File History: the certified copy of foreign

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	image-side surfaces. 22. The imaging lens assembly according to claim 20, wherein the first lens element, the second lens element, and the third lens element are made of **plastic** material, a distance on the optical axis between the first lens element and the second lens element is T12, the focal length of the imaging lens assembly is f, and they satisfy the relation: 1.35<(T12/f)*10<1.85. '860 Patent 2. The optical lens system according to claim 1, wherein the fourth lens element has a concave object-side surface and a convex image-side surface, at least one of the object-side and image-side surfaces of the fourth lens element is aspheric, and the fifth lens element is made of **plastic**.			produced only hours before the original filing, and which Largan has not had a sufficient opportunity to review.		priority application, Taiwanese Patent Application 99106717, submitted 7/13/2010, and the notice of allowability and reasons for allowance dated 2/15/2012. '860 Patent at 7:65–8:3, 8:21–51, 10:16–37, 11:46–12:9, 13:18–48, 14:57–15:20, 16:28–58, 17:66–18:29, and Tables. 1, 3, 5, 7, 9, 11, 13. '190 Patent at 6:39–40, Figures 7, 9, 11,

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						'191 Patent at 6:39–40, Figures 7, 9, 11, Academic Press Dictionary of Science and Technology, 1667 (1992), SAM-LAR00008631–SAM-LAR00008633. Samsung provided a copy of the relevant section of the Academic Press Dictionary of Science and Technology, 1667 (1992) to Largan on 8/28/2014 in response to issues raised by Largan during the meet and

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						confer process. Samsung objects to Largan's purported reliance on U.S. Patent No. 7,791,818, U.S. Patent No. 8,279,532, and U.S. Patent No. 8,665,533. Contrary to the requirements of L.P.R. 4.1(a) and 4.1(c), Largan first disclosed these references less than 12 hours before the original filing was due to the Court.
5	2. The imaging lens assembly according to claim 1, wherein the second lens element has a concave object-side surface and a convex image-side surface, is	807 Patent, Claims 2 and 20	This term is not indefinite and should be given its plain and ordinary meaning,	'807 Patent at FIGs. 1, 3, 5, 7, 9, 11; 2:18-19; 3:11-12; 4:63-64; 6:2-3;	Indefinite This term, viewed in light of the specification and	Samsung identifies the entirety of the specification and file history

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	made of plastic material, and has **at least one inflection point formed on the object-side and image-side surfaces**. 20. An imaging lens assembly comprising, in order from an object side to an image side: a first lens element with positive refractive power having a convex object-side surface and a convex image-side surface; a second lens element with negative refractive power having a concave object-side surface and a convex image-side surface, at least one of the object-side and the image-side surfaces thereof being aspheric; and a third lens element with negative refractive power having a concave image-side surface, both of the object-side and image-side surfaces thereof being aspheric, **at least one inflection point formed on the object-side and image-side surfaces**; and wherein		which is "at least one inflection point formed on at least one of the object-side and image-side surfaces". Pursuant to P.L.R. 4.2(b), Largan states that other than Samsung's indefiniteness argument, it is not presently aware of any non-infringement or invalidity argument that hinges upon the construction of this term. However, Samsung has not yet provided any substantive response to Largan's discovery	7:13-14; 8:29-31; 10:4-6; 11:25-27; 12:65-66; 14:29-30; 15:59-60. '807 FH at LAR-SAM-0000528-589.	prosecution history, fail to inform those skilled in the art about the scope of the invention with reasonable certainty. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. ____, slip op. at 11 (2014). Pursuant to P.L.R. 4.2(b), Samsung states that the construction of this claim term may impact its non-infringement or invalidity arguments. However, Largan has not served proper infringement contentions or any substantive response to Samsung's discovery request seeking its validity positions.	of the '807 patent, because claims 2 and 20, when "read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." Samsung further identifies the following specific citations as supporting its position: '807 Patent at 2:18–19; 3:11–14; 4:63–67; 5:59–6:3; 7:3–

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	the imaging lens assembly further comprises an aperture stop disposed between the first lens element and the second lens element, and an electronic sensor for image formation; wherein there are three lens elements with refractive power; and wherein a focal length of the imaging lens assembly is f, a focal length of the second lens element is f2, a radius of curvature of the object-side surface of the first lens element is R1, a radius of curvature of the image-side surface of the first lens element is R2, an Abbe number of the first lens element is V1, an Abbe number of the second lens element is V2, a distance on the optical axis between the aperture stop and the electronic sensor is SL, a distance on the optical axis between the object-side surface of the first lens element and the electronic sensor is TTL, and they satisfy the following relations: −0.70<f/f2<−0.24;		requests seeking its non-infringement positions.			14; 8:13–32; 9:55–10:6; 11:19–37; 12:48–66; 14:12–30; 15:42–60; Figures 1, 3, 5, 7, 9, 11, 13–25; cls. 2, 12, & 20. '807 File History: the certified copy of foreign priority application, Taiwanese Patent Application 99106717, submitted 7/13/2010, and the notice of allowability and reasons for allowance dated 2/15/2012.

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	−0.30<R1/R2<0.00; 31.0<V1−V2<45.0; 0.75<SL/TTL<0.90.					